UCET Newsletter
PC Tips and Tricks

Volume 2 - Issue 3 - March 2015

Register now for UCET 2015!

UCET, the Utah Coalition for Educational Technology, will be holding its 2015 conference soon. It's time to register! The 2015 UCET Conference (#ucet15) will be held on April 2 & 3 at Herriman High School. Our theme this year is UCET: Tech Elevated. Keynote speakers will be Vicki Davis (@coolcatteacher) and Jay McFarland (@JayMcfarland).

Attend UCET! Join us at the conference to learn ways in which you can use technology to elevate teaching and learning! Here is the link to register as an attendee.

http://www.ucet.org/attendees/

More information about the UCET conference, including keynote speaker bios, conference activities, the conference schedule, UCET board elections, and more, can be found at **http://www.ucet.org/conference/**

The current conference registration costs through March 14 are: $60 Both Days or $42 for one day. $30 for college students for both days (proof required, such as a current activity card). After March 14 add $10 to all price categories. This is a conference you won't want to miss!

## This Issue is all About Tips and Tricks for Your PC (Windows and Macintosh!)

Welcome to the March 2015 issue, where we will be sharing some of the tips and tricks we've learned about using our Windows or Macintosh PCs. We'll share shortcuts, time savers, applications, and more, ideas that we've learned over time that makes using technology easier.

Have you ever needed to take a picture of your screen? Have you wondered how to convert that quicktime movie file into the more generally accepted MP4 format? Have you ever wondered how to install (or uninstall) a font? Have you ever wanted to zoom in on a portion of your computer screen when presenting to your class? Then read on! We hope you'll find the information in this issue useful, like we have.

Macintosh 101 from Apple

https://www.apple.com/support/macbasics/

Need a lesson on how to get the most out of your Mac? You've come to the right place. If you're new to the Macintosh, this is a great place to start. You'll learn how to use the Mac interface, and more!
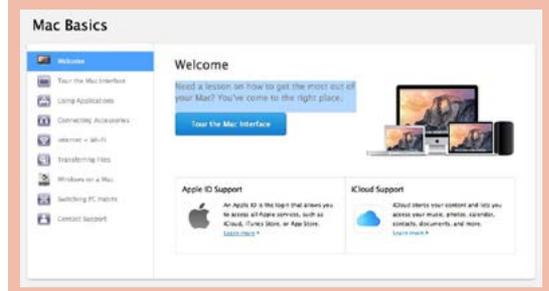
Microsoft Windows Keyboard Shortcuts

By: Joe Bainbridge

The Microsoft Windows operating system is one of the most popular operating systems ever made. According to Microsoft, "1.5 billion people use Windows every day". However, with 1.5 billion people using Microsoft, there are some key features that might be overlooked. These key features are better known as keyboard shortcuts.

Some may think that using keyboard shortcuts are for "power users" only, however, keyboard shortcuts can make our everyday computing more efficient and effective. Sometimes a mouse can be awkward and tiresome. This is when keyboard shortcuts come in handy. A perfect example of this is when we try to cut, copy, or paste. Have you ever tried to use a mouse to cut, copy, or paste multiple items on a document? I am sure most of us have. Nonetheless, using the keyboard shortcut for copy, which is CTRL + C, and paste, which is CTRL + V, can make copying and pasting a few dozen items feel a lot less troublesome.

Cut, copy, and paste are not the only Windows functions that have shortcuts, in fact, there are over a hundred different Windows keyboard shortcuts that can make our everyday computing more effective! Below are a list of a few significant Windows keyboard shortcuts that may be useful:

Key Combinations	Result
Windows Logo	Start Menu
Windows Logo + Tab	Cycle through taskbar buttons/programs
CTRL + S	Save
CTRL + Z	Undo
CTRL + F	Find
CTRL + SHIFT + ESC	Opens Windows Task Manager
ALT + F4	Closes current window
CTRL + A	Select all items in a current window
SHIFT + DELETE	Immediately delete selection, without moving to Recycling Bin
CTRL + P	Opens the print menu
Windows Logo + L	Lock the computer
CTRL + B	Bold the selection
CTRL + U	Underline the selection
CTRL + I	Italicize the selection
CTRL + X	Cut the selection

To see the full list of Windows keyboard shortcuts, please go to the following link:

http://support.microsoft.com/kb/126449.

Sources

"Microsoft by the Numbers." Microsoft. Microsoft, 2014. Web. 25 Feb. 2015. **http://news.microsoft.com/bythenumbers/index.HTML**
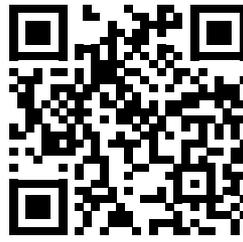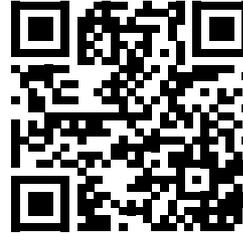
Microsoft by the Numbers

Full list of Windows keyboard shortcuts

Attendee Registration for UCET 2015

Macintosh Basics from Apple Computer

Use Windows more easily with Windows commands

by: Kelson English

Windows has a lot of shortcuts, commands, and tricks available that are not widely known. Windows provides a long list of commands to make navigating and using your PC more quick and easy. Below are sample commands that may be helpful.

Press:
In order to:

Windows Key
Open the Start Menu

Windows Key + D
Display the Desktop

Windows Key + E
Open Computer

Windows Key + F
Search File or Folder

Windows Key + R
Open Dialog Box

Windows Key + Tab
Cycle through programs on the taskbar using Aero Flip 3-D

Windows Key + Up Arrow
Maximize the Window

Windows Key + Down Arrow
Minimize the Window

F1
Display Help

These are just a few samples of the many shortcuts and key commands available on Windows. For a more complete list go to **http://windows.microsoft.com/en-us/windows/keyboard-shortcuts#keyboard-shortcuts=windows-7**.

Another command that is very useful is the Screen Capture. Screen Capture will capture an image of what you currently see on your monitor. This can be useful in case of errors, or if you just want to share what you are seeing.

To perform a screen capture Press the key PrtSrn (Print screen). By pressing PrtScn the image will be saved to the Clipboard. Open Paint and press the Paste button and you will see your image.

Finding Your Forgotten WiFi

Password   By: Dave Wilkins

Have you ever forgotten an important password? This tutorial will show you step by step instructions on how to reclaim your forgotten WiFi password. This also will show all the WiFi connections you've had and the respective password for that connection. This tutorial is only for personal computers running a Windows operating system. The words in red are the words you need to type into command prompt.

Step 1) Open Command Prompt. Click the 'Start' button and, or if you're using Windows 8, push the 'Windows' button and type in "cmd".

Step 2) In command prompt, type in the following:
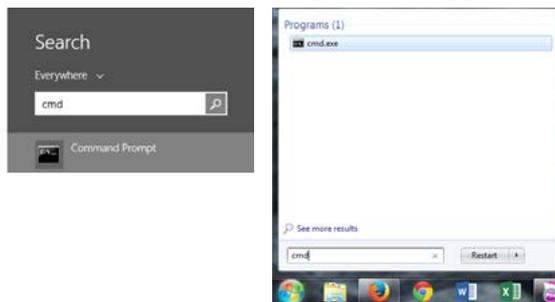
color a   This is not necessary, it just changes the color of the text to green so it's easier to see.

Step 3) Type in the following: netsh wlan show profiles This will show a list of all the names of WiFi connections your computer has connected to.

Step 4) Choose the WiFi connection that you need the password for. I will use the one labeled "Reptar" Type this in, but replacing <name> with the WiFi connection you want the password for:

netsh wlan show profiles <name> key=clear

Step 5) Your WiFi password for the network you choose should appear where the red arrow is pointing in the image below. It is listed on the same line as the "Key Content". In this case, the network named "Reptar" has a password of: 9876543211

Mac - How to take a

Screenshot

Macintosh OSX has the ability to take a screenshot of your computer screen built right in to the system software. Here's what you can do...

Command-Shift-3: Take a screenshot of the screen, and save it as a file on the desktop

Command-Shift-4, then select an area: Take a screenshot of an area and save it as a file on the desktop

Command-Shift-4, then space, then click a window: Take a screenshot of a window and save it as a file on the desktop

Command-Control-Shift-3: Take a screenshot of the screen, and save it to the clipboard

Command-Control-Shift-4, then select an area: Take a screenshot of an area and save it to the clipboard

Command-Control-Shift-4, then space, then click a window: Take a screenshot of a window and save it to the clipboard

In Leopard and later, the following keys can be held down while selecting an area (via Command-Shift-4 or Command-Control-Shift-4):

Space, to lock the size of the selected region and instead move it when the mouse moves

Shift, to resize only one edge of the selected region

Option, to resize the selected region with its center as the anchor point

Source: **http://guides.macrumors.com/Taking_Screenshots_in_Mac_OS_X**

In the link above, and the QR code below, MacRumors Guides will also show you how to change the screenshot format from one type to another. Screenshots can be saved as jpg, tiff, pdf, png, bmp, or pict files. All you have to do is go into the Mac's Terminal program and type a command to do this.

Screenshots are saved to the Mac Desktop, but you can also change that location in Terminal.

Another thing you can change in Terminal is whether a screenshot capture of a window shows a shadow or not. And there's more. Follow the link or the QR code!

Nathan Smith

Take a screen shot - Applies to Windows XP

Ever see something on your screen that you'd like to email or save for later? With Microsoft Windows XP, you can take a screen shot and capture an exact image of what's on the screen.

To take a screen shot and save it as a picture

Click the window you want to capture. Press Alt+Print Screen by holding down the Alt key and then pressing the Print Screen key. The Print Screen key is near the upper-right corner of your keyboard. (Depending on the type of keyboard you have, the exact key names on your keyboard may vary slightly.)

Note: You can take a screen shot of your entire desktop rather than just a single window by pressing the Print Screen key without holding down the Alt key.

Click Start, click Accessories, and then click Paint.

In the Paint window, click Edit, and then click Paste.

When the image appears in the Paint window, click File, and then click Save As.

In the Save As dialog box, in the File name box, type a name for the screen shot, and then click Save.

You can now print or email the saved screen shot just like you would any other picture.

Source: **http://windows. microsoft.com/en-us/ windows-xp/help/setup/ take-a-screen-shot**

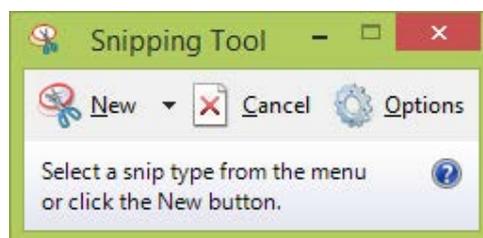## Use Snipping Tool to capture

SCREEN SHOTS

Windows 8.1, Windows RT 8.1

Sometimes the easiest way to make a copy of something is to take a snapshot of your screen—this is what Snipping Tool does. Use it to save and share news stories, movie reviews, or recipes.

You can capture part or all of your PC screen, add notes, save the snip, or email it right from the Snipping Tool window.

Snipping Tool window (right)

To open Snipping Tool - Open Snipping Tool by swiping in from the right edge of the screen, tapping

Search (or if you're using a mouse, pointing to the lower-right corner of the screen, moving the mouse pointer up, and then clicking Search), entering Snipping Tool in the search box, and then tapping or clicking Snipping Tool.

You can capture the following types of snips:

Free-form Snip. Draw any shape around an object with your finger, mouse, or tablet pen.

Rectangular Snip. Drag the cursor around an object to form a rectangle.

Window Snip. Choose a window—like a browser window or a dialog box.

Full-screen Snip. Capture the entire screen.

Capture a snip - In Snipping Tool, tap or click the arrow next to the New button, choose the kind of snip you want, and then pick the area of your screen that you want to capture. The snip is automatically copied to the Snipping Tool window.

Tip - You can add notes to a snip by writing or drawing on or around the snip.

Capture a snip of a menu - After you open Snipping Tool, open the menu that you want a picture of.

Press Ctrl+PrtScn.

Tap or click the arrow next to the New button, choose the kind of snip you want, and then pick the area of the screen that you want to capture.

Save a snip - After you capture a snip, tap or click the Save Snip button. In the Save As dialog box, enter a file name, location, and file type, and then tap or click Save.

Remove the URL - When you capture a snip from a browser window and save it as an HTML file, the URL appears below the snip. To prevent the URL from showing up: Tap or click Tools, and then tap or click Options. In the Snipping Tools Options dialog box, clear the Include URL below snips (HTML only) check box, and then tap or click OK.

Share a snip - After you capture a snip, tap or click the arrow next to the Send Snip button, and then choose whether you'd like to send the snip in the body of your email or as an attachment.

Source: **http://goo.gl/1YjPRz**

Handbrake - Free Video Converter for Mac & PC

https://handbrake.fr

Handbrake is a powerful, fast, free video converter that will convert almost any format of video you can throw at it.

Built-in Device Presets - Get started with HandBrake in seconds by choosing a profile optimised for your device, or choose a universal profile for standard or high quality conversions. Simple, easy, fast. For those that want more choice, tweak many basic and advanced options to improve your encodes.

Supported Input Sources: Handbrake can process most common multimedia files and any DVD or BluRay sources that do not contain any kind of copy protection.

Outputs: File Containers: .MP4(.M4V) and .MKV

Video Encoders: H.264(x264), H.265(x265) MPEG-4 and MPEG-2 (libav), VP8 (libvpx) and Theora(libtheora)

Audio Encoders: AAC, CoreAudio AAC/HE-AAC (OS X Only), MP3, Flac, AC3, or Vorbis

Audio Pass-thru: AC-3, DTS, DTS-HD, AAC and MP3 tracks

Even more features

• Title / Chapter selection
• Queue up multiple encodes
• Chapter Markers
• Subtitles (VobSub, Closed Captions CEA-608, SSA, SRT)
• Constant Quality or Average Bitrate Video Encoding
• Support for VFR, CFR and VFR
• Video Filters: Deinterlacing, Decomb, Denoise, Detelecine, Deblock, Grayscale, Cropping and scaling
• Live Video Preview

LATEX - Making Mathematical Typing Easier! By: Rob Wilkins

Introduction: Many word processor programs don't accommodate using special characters very well. For example, have you ever tried typing complex math problems using Microsoft Word? It can be done but the equations remain in a very messy English format that doesn't use math notation. With a TeX based software you can turn the messy English equation

"[-b +- sqrt(b^2 - 4ac)] / 2a"   into $$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$ with ease!

Background: TeX is a computer program that was created by Donald Knuth in 1978. It was designed with two main goals in mind: to allow anybody to produce high-quality books using a reasonably minimal amount of effort, and to provide a system that would give exactly the same results on all computers, at any point in time. TeX is a popular means by which to typeset complex mathematical formulae; it has been noted as one of the most sophisticated digital typographical systems in the world. TeX is popular in academia, especially in mathematics, computer science, economics, engineering, physics, statistics, and quantitative psychology. It has also been proven helpful when typing languages utilizing different alphabets, like Chinese. (wikipedia)

What is LaTeX: LaTeX was built using TeX as its foundation. It is a set of additional macros and functions on top of what TeX provides. These programs are not a word processor! Instead, these typesets act like word processors but require a compiler in order to generate a readable document. This allows for optimizing the final product, converting English notation into complex mathematical notation, and auto formatting behind the scene. LaTeX encourages authors not to worry too much about the appearance of their documents but to concentrate on getting the right content. LaTeX is based on the idea that it is better to leave document design to document designers, and to let authors get on with writing documents. So in short, LaTeX is a document preparation system for high-quality typesetting. It is most often used for medium-to-large technical or scientific documents but it can be used for almost any form of publishing. (latex-project)

LaTeX has so much more to offer then I can talk about. So, for the sake of simplicity, this article will only be an introduction to LaTeX, simple examples to demonstrate what it can do for the math world, and how to obtain it. For a more complete guide and tutorials, links will be provided at the end.

Using LaTeX: When using LaTeX, the typing style required is like a mild programming language which can seem discouraging at a first glance; however, its learning curve isn't all that steep. Downloadable templates reduce this learning curve. Users only have to loading a template which allows them to jump right into development without memorizing much code formatting. This program-like typing style is necessary to provide the ability to type math equations with ease. Once learned and utilized correctly, LaTeX becomes a powerful tool for the user. Creating math documents and homework handouts becomes a very simple and stress free task.

Code and its corresponding compiled output: At any time during a document's development the "build and run" button translates all the typed "code" into a readable PDF document. When compiling, if there is any problems with the code it will stop and let you know what they are; otherwise a readable PDF version of your code will pop-up. Following are some explanations and examples of what to expect from a TeX based program:

Brief explanations:

In these explanations "…" represents anything.
$ … $ encloses a math equation in-line with the text.
$$ … $$ encloses an equation and puts it on its own line.
… _{ … } is for making subscripts.
… ^{ … } is for making superscript.

Look for the previous key commands in the examples at right:

Obtaining LaTeX: The bottom-right picture is a screenshot of a LaTeX based program called TeXstudio. The steps to download it are as follows:

1. Go to: **http://texstudio.sourceforge.net/**
2. Click Download button on left side of screen.
3. Find latest version of either Windows, Mac, or Linux and click the download link.
4. On the new page wait patiently for the download to pop-up and click "Save File".

Walk-throughs and Tutorials:

1. **http://physics.nyu.edu/~physlab/Lab_Main/Latexguide.pdf** - A beginner's guide in PDF format.
2. **http://en.wikibooks.org/wiki/LaTeX** - This source is a massive online instructional book for LaTeX.
3. **http://www.latex-tutorial.com/** - Anther online tutorial center.
4. **https://tobi.oetiker.ch/lshort/lshort.pdf** - PDF document containing an extensive LaTeX tutorial.
5. **http://mirror.jmu.edu/pub/CTAN/info/Math_into_LaTeX-4/Short_Course.pdf** - Another PDF.

Sources Used:
- **http://en.wikipedia.org/wiki/TeX**
- **http://latex-project.org/intro.html**

LaTeX Code Format	Compiled Fomate Displayed in a PDF
$$ x^{2 \alpha} - 1 = y_{ij} + y_{ij} $$	$x^{2\alpha} - 1 = y_{ij} + y_{ij}$
$$ a_1^2 + a_2^2 = a_3^2 $$	$a_1^2 + a_2^2 = a_3^2$
Integral $\int_{a}^{b} x^2 dx$ inside text	Integral $\int_a^b x^2 dx$ inside text
Integral on its own line: $$\int_{a}^{b} x^2 dx$$	Integral on its own line: $$\int_a^b x^2 dx$$
$$\sum_{n=1}^{\infty} 2^{-n} = 1$$	$$\sum_{n=1}^{\infty} 2^{-n} = 1$$
$$\lim_{x\to\infty} f(x)$$	$$\lim_{x\to\infty} f(x)$$
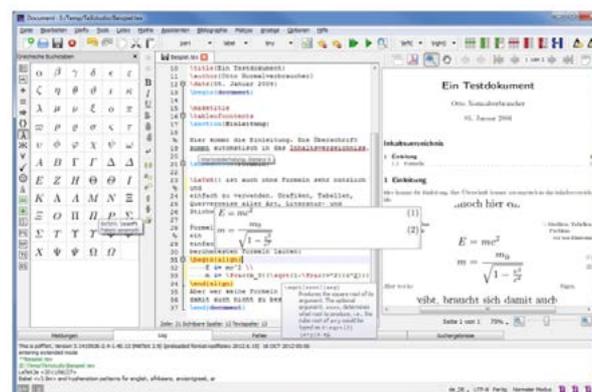
Shortcuts - The Function Keys (Windows)

By: Jordan Haws

If you're like me, for a lot of your life you have used a computer, and it has been great. You can get around to everything you need to, and you can figure most things out, albeit with help at times. However, there is entire sections of the keyboard that for a long time I never really used. I always figured they were there for the sake of options for really big computer geeks, and to make the keyboard bigger. On closer inspection though, the function keys, especially in combination with the Alt and Ctrl keys have a lot of unused potential. So, in hopes of helping us all use what we have in front of us to make our lives easier, here are some of the most useful ones!

F1 is the almost universal help key. Just hit it and it will bring up the program's help window!

F2 is a quick way to rename a selected file or folder, who knew?

Most people are familiar with Ctrl F to search whatever you have in front of you, but **F3** is a one key stroke that does the same thing.

If you're in Word 2000 or later, **F4** will repeat whatever your last action was, be it a paste, typing a line, hitting tab or whatever. There is also the classic and humorous suggestion of Alt F4 when a coworker is in trying to figure something out and asks if you know how. (It closes whatever program they are in. It can be funny, but use with caution :)

F5 is a quick way to refresh whatever page you are on with whatever browser you use. It's also a quick way to start a slideshow in PowerPoint.

When cruising the internet, **F6** jumps you up to the address bar. It saves the time especially because you can have your hands on the keyboard at all times!

If you're in Word, **F7** is the spell check shortcut, which is something I use all the time!

Ever wonder where your menu bar went that's usually at the top of your screen? Well, **F10** can toggle that on or off, depending on your preferences.

On any main browsers, **F11** will toggle full screen on and off, and is super nice!

While we are on the subject though, there are a lot of other keys that are great for everyday use. I have not and will not put every key and every shortcut on here, but I hope I am putting the ones that will be most useful to you.

I'm sure a lot of people are aware some of the main uses of **Ctrl** key, but for those who aren't, here's a good refresher. Ctrl and the bolded letter for each of these words is what they do, so use it to get a New document, Open something, select All the text, change to Bold, Italics, or Underline something. You can Find a phrase or word, Save what you're doing, Xut (cut, because c is already in use), Copy, or Vaste (paste, because that's being used too), or even Print. Also Z is for undo, and Y is for redo (I honestly think they just ran out of ideas for these ones).

Lesser known shortcuts along with Ctrl, in my opinion, are using Home to go to the beginning of a document, End to go to its end, and Left and Right to move by a word and not a letter in their respective directions. If you hit it with Esc, you will get the start menu, and lastly, using it with Shift and Esc will bring up your task manager.

Also in a document, Home will take you to beginning of the line, and End will take you to the end. Last the best in my opinion is Alt and Tab. It lets you swap in between all the windows you have up, and makes it very easy to work with a lot even if you only have one screen to put it all on.

Well, that's the end of it! There are a lot more like I said before, but you could google it and get full listings of what every combination of every key. So if that's what you're after, go for it. If you already knew all this I hope it was a good refresher, but I really hope you learned a new shortcut that'll help in the everyday computer usage.

Install or Uninstall Fonts on a Windows PC

By: Kelson English and Nathan Smith

In order to Install a Font it must first be downloaded. A couple of great free font sites are daFONT (**http://www.dafont.com**) and 1001 Free Fonts (**http://www.1001freefonts.com**). Also look at 1001 Fonts (**http://www.1001fonts.com**).

After the Font has been downloaded, it only takes a few easy steps to install a Font.

1. Right Click the desired font file
2. In the drop down menu select Intall
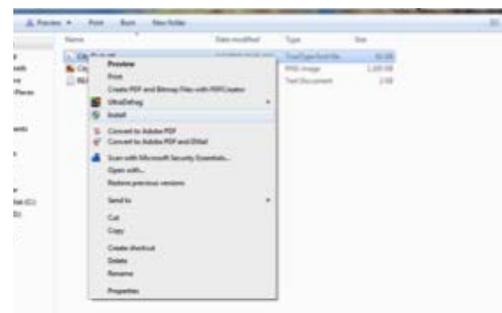
Another way to install a font is to drag and drop the desired font file into the Fonts folder in the Control panel.

To get to the Fonts folder in the Control Panel

1.Press Start, then go to Control Panel

2. While in the Control Panel, select Fonts and drag them into the Fonts control panel window. That's all there is to installing a font.

To delete fonts in the Fonts folder, right click the fonts and select Delete. Fonts take up precious computer resources, so I would suggest keeping only the system fonts and the fonts that you frequently use. Nothing can slow a computer down like having a couple thousand fonts installed! Just install them when needed.

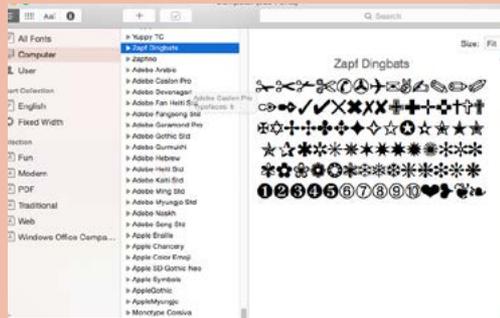daFONT   1001 Free Fonts   1001 Fonts
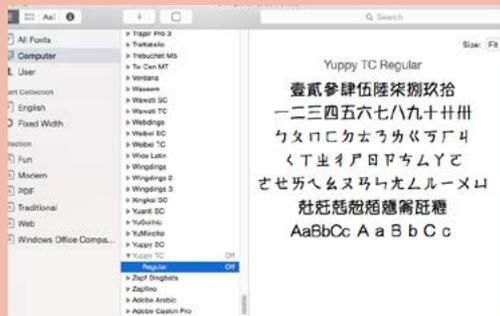
Using Fonts on a Macintosh

All Macintosh OSX computers come with an application, Font Book, that lets you install and uninstall fonts.

To install a font, just click the + button above the list of fonts (see image above). To turn a font off so it's not taking up resources, click on the font and the click the check mark button at the top of the font list.
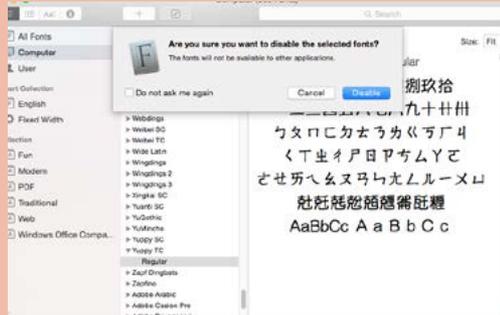
You will then receive a warning dialog that tells you the font will be turned off and no longer be available in your font list. Go ahead and click "Disable". The font will not be deleted, but just turned off until you decide to turn it back on again. The check mark box becomes an empty box, and the font is labeled as "off."

To turn the font back on, just select it and click the empty check mark box. That's all there is to it.
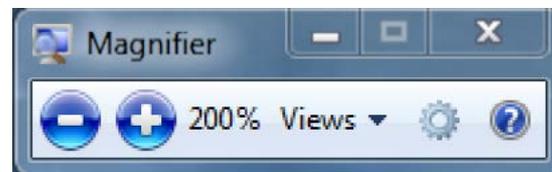
By: Nathan Smith

How to Zoom in and out on a Macintosh.

If you're using a trackpad, you can use two fingers and push up or down while holding the control key.

Zoom in on Mac Desktop - YouTube Video. Click image above or scan QR Code.

How to Quickly Zoom in and out on a Windows PC.

Windows includes a small program called Magnifier. You can call it up like any other program by going to the START menu and typing magnifier, and then press ENTER. The Magnifier window is a small one with a views dropdown, a menu, a "+" button and a "-" button. Each time you click the "+" button you'll zoom in toward your mouse cursor. You can move around the screen, and when you push against any of the magnified screen edges, you'll move the window over another, hidden part of the screen.

There is a shortcut to the Magnifier - and that is hold down the Windows Key and press the "+" key. That will launch the Magnifier program. Each time you press the + key, you'll zoom in more on the screen. To zoom out, hold the Windows key while pressing "-" (minus key). Again, each time you press the - key while holding the Windows Key, you'll zoom further out until you return to the normal screen resolution. The Magnifier program will stay running until you close it - you'll see its icon in the task bar.

For teachers, it is important to know how to do this, as you probably present to your class all the time using a PC or Mac hooked up to a projector or flatscreen TV. Being able to zoom in or out during a presentation helps your viewers be able to focus and actually see the part of the screen you're talking about.

I hope you found this useful! Since I'm getting older, it also helps my poor eyes to see better. Nathan Smith

Keep Your Mac Awake While Presenting

http://goo.gl/RwkMUb

Caffeine is a tiny program that puts an icon in the right side of your menu bar. Click it to prevent your Mac from automatically going to sleep, dimming the screen or starting screen savers. Click it again to go back. Right-click (or Command-click) the icon to show the menu.

Important: Caffeine lives in the MENU BAR, and this is where its state is indicated. App Store puts the Caffeine icon in the dock, but you can just remove it if you want to. Currently, it's free.

Keep Your PC Awake While Presenting

http://mousejiggler.codeplex.com

Mouse Jiggler is a free, very simple piece of software whose sole function is to "fake" mouse input to Windows, and jiggle the mouse pointer back and forth.

Useful for avoiding screensavers or other things triggered by idle detection that, for whatever reason, you can't turn off any other way; or as a quick way to stop a screensaver activating during an installation or when monitoring a long operation without actually having to muck about with the screensaver settings.

Teaching Diverse Children

By: Janessa Wilson

As teachers there is always room for improvement. Whether it's changing our classroom management or changing our lesson plans. One thing that teachers may need to improve upon is teaching with diversity in the classroom. In the United States, caucasians have changed from being the majority to the minority. Latin Americans and other races have become the majority. "In America today the Foreign Born population from 1900-2010 has increased from 5%-20%. That is an increase of 15% in just over 100 years." (Coming to our Census-Pam Perlich).

As you see, the need for teaching diverse population has grown tremendously in the classroom. It has become a challenge among the teaching community. In fact many teachers get nervous about teaching diverse children. However, I have found that there are many websites that can help a teacher learn different ways to teach a diverse class. One website I found was https://www.teachervision.com/teaching-methods/resource/6039.html.

One thing that I found very helpful on this website is "Appreciating and accommodating the similarities and differences with students' cultures."   In many cases teachers forget that not every child has the same background. By understanding the difference we can more effectively teach children. There are many ways to find out about a student's background. Some teachers will send an 'About you form' home or even have the child take a day where they have their parents come to class and talk about their family and background.

Another helpful tool on this website is "Instructional Strategies." Many times teachers do not know how to effectively teach children of a different race or a child with disabilities. When teaching these children, you must be patient and understanding. Communication can also be a challenge. Several times a year the teacher will need to revise their lesson plans to better fit a diverse class. A teacher must also be able to explain what they want in a way that every child can understand it.

There are a lot of students who also speak little or no English. This is a big problem. Teachers will often become frustrated and upset, because they can't teach that specific child. When, in fact, the child is also feeling frustrated and upset, because they do not understand what you are saying. In many schools students that speak little to no English will be sent to a resource class for a couple hours a day. This is a place that allows students to function in a much smaller environment. However it is the teachers' job to contact the resource teacher to inform them about the needs of that child, because the child does not know what to do when they do not understand.

Teachers that have a diverse class will sometimes forget about everyone's background, and only teach a lesson plan to one type of student. It is hard to accommodate to every students needs, but it is possible.

Resources:

Coming to our Census- **http://vimeo.com/13911321**

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FreeMind – Collect your ideas with this mind mapping Software

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Internet

Firefox – A safe, secure and fast web browser

Thunderbird – Manage your emails better than ever – Reclaim your inbox!

Pidgin – Talk to your friends whatever instant message client they use

Kompozer – Create web pages easily, without having to code

Art and Graphics

GIMP – Edit digital photos and create graphics

GIMP animation – Create animations

Inkscape – Make professional looking vector graphics

Pencil – Animate your own cartoons

Blender – 3D graphic modeling, animation, rendering and playback

Tuxpaint – Drawing program for children ages 3 to 12

Multimedia

VLC – Play music, videos and DVDs

Audacity – Record, edit and mix music

Mixxx – Mix your own music like a DJ

MuseScore – Compose your own music

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CamStudio – Record your actions on a computer

Really Slick Screensavers – Great looking screensavers

Science and Mathematics

Nasa Worldwind - Discover the earth and other planets

Geogebra - Learn geometry and algebra

Greenfoot – Teach yourself how to program

GraphCalc – A graphical calculator

BYOB – Learn how to program and make animations

CarMetal – Cool mathematical modelling tool

Maxima – University standard computer algebra system

Celestia – Explore the universe in three dimensions

Stellarium – A planetarium on your PC

Games

FreeCiv - Control the world through diplomacy and conquest

FreeCol – Discover the 'New World' and build an empire

Numpty Physics – Solve puzzles using physics

TuxTyping 2 – Learn to type like a pro

Tux of Math Command – Test your mathematical skills

Utilities

7zip – Compress and uncompress files in a wide variety of formats

Abakt - Schedule and execute backups of your data

Clamwin – Antivirus software with automatic updating

TrueCrypt – Encrypt and secure your valuable data

Workrave – Prevent and recover from Repetitive Strain Injury (RSI)

- See more at: **http://www.theopendisc.com/education/#sthash.VAJKWgpX.dpuf**